CAD / GIS Integration

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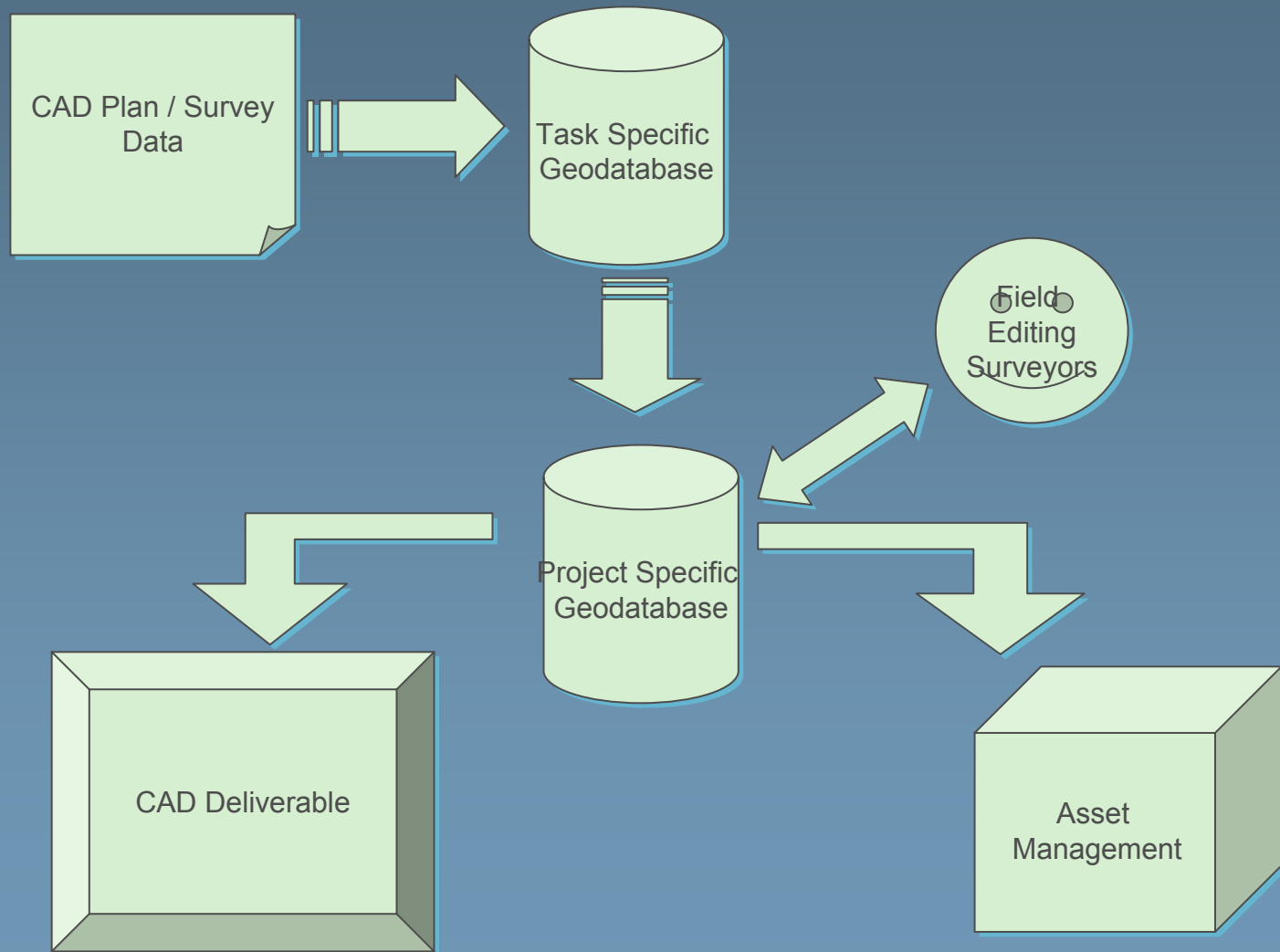
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Presentation Outline

- Overview (Four Phases)

- Why Put Yourself Through This?

- Suggested Methodology

- Questions & Answers

Overview

- **Survey to GIS Conversion**

- **Goal**

    – *A Method to Incorporate Survey Data (CAD or Field Data) into a GIS*

    – *Deliver GIS Base Data (Survey Quality) to Surveyors*

- **High-Level Approach**

    – *Phase I: Develop CAD and Collection Standards*

    – *Phase II: Develop Import Routine*

    – *Phase III: Develop Integration Process*

    – *Phase IV: Develop Export Utilities*

Overview

Project Overview – CAD / Collection Standards

- Standards
  - *CAD Layers*
  - *CAD Blocks*
  - *Collection Software*
    - *Capable of Collecting Attributes*
  - *Attribution*
    - *Items*
    - *Valid Values*

Project Overview – Import Routine

- Objectives
  - *Ability to Take CAD or Survey Data Direct into GIS*
  - *Off-The-Shelf Products*
    - *Survey Capable*
      - *CAD*
      - *Survey Analyst*
      - *MobileMatrix*
    - *Two-Step Process*
      - *Photogrammetry to ArcPad / ArcGIS Server*

Project Overview – Integration Process

- Objectives
  - *Integrate Base and Field Data with Minimal Manual Edits*
    - *Boundaries*
      - *Exact Locations of Where Field Edits Stopped*
    - *Photo versus Field (without Field Verification)*
    - *Feature Level Metadata*
    - *What About Historic Data?*
      - *ArcSDE*

Project Overview – Export Utilities

- Objectives
  - *Develop Routines to Extract Data from GIS to CAD*
    - *Why???*
      - *Annotation*
      - *One Master File*
      - *Standards*

Why Put Yourself Through This?

- Large Project

- Long Duration Project

- Data Heavy Project

- Collaboration

- Great End Product
  - *Facilities Maintenance / Asset Management*

- Good Bye Data Closet

- History Built Into System

Suggested Methodology

- ArcGIS Server

- Survey Analyst

- Data Interoperability Extension

- Willing Surveyors!!

Thank You, and Any Questions?